

Translation

PATENT COOPERATION TREATY

PCT/EP2003/006473



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference W1585PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/006473	International filing date (day/month/year) 18 June 2003 (18.06.2003)	Priority date (day/month/year) 19 June 2002 (19.06.2002)
International Patent Classification (IPC) or national classification and IPC E04F 15/04		
Applicant WEITZER PARKETT GMBH & CO. KG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 16 January 2004 (16.01.2004)	Date of completion of this report 27 September 2004 (27.09.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/006473

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages 1-6, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1-10, filed with the letter of 27 August 2004 (27.08.2004)
- ☒ the drawings:
pages 1/2-2/2, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/06473

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	7, 9	YES
	Claims	1-6, 8, 10	NO
Inventive step (IS)	Claims		YES
	Claims	7, 9	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. For this examination report the following documents were considered:

D1: DE-U-20121196

D2: WO-A-0224421

D3: DE-A-10120062

D4: Product description for Fibo-Trespo AS:
"Alloc ... der Laminatboden, der ohne Leim verlegt wird", 31 pages, January 1996

NOVELTY (PCT ARTICLE 33(2))

2. The subject matter of **claims 1 to 6, 8 and 10** lacks novelty (PCT Article 33(2)).

- 2.1 Document **D1** discloses (see pages 12-13 and figures 10 and 11) a panel element

- (a) with a wearing side 14, a reverse side opposite the wearing side (page 10, lines 12 to 17),
- (b) a first longitudinal edge with a tongue,
- (c) a second longitudinal edge opposite the first longitudinal edge with a groove designed to match the tongue,
- (d) the tongue having a projecting first lug 20

- extending in a first direction which is parallel to the wearing side and perpendicular to the longitudinal direction of the tongue,
- (e) the part of the tongue nearest the reverse side having a second lug 18 extending in the first direction,
 - (f) a first undercut being formed between the first lug 20 and the second lug 18,
 - (g) the groove having a third lug 28 projecting beyond the reverse side in the first direction, and
 - (h) a tongue-and-groove joint being created by placing the tongue obliquely against the groove of another, matching panel element and essentially applying a turning movement so that the tongue clips into the groove of the other matching panel element,
 - (i) the second lug 18 being designed to clip around the third lug 28 on the other matching panel element, resulting in semi-plastic deformation of the second lug on the tongue and of the third lug in the groove of the other matching panel element.

In **D1** a first part of the second lug 18 (i.e. the upper side of the lug 18 near the opening of the groove 19) is closer to the tongue-side edge of the wearing side than a second part (i.e. the upper side of the lug 18 near the base 32 of the groove 19) of the first undercut, and the first part is further away from the panel element than the second part when viewed looking in the first direction. Because of this narrowing of the tongue there is necessarily some resistance to overcome as the turning movement is made. When the panel elements are clipped together there is deformation of the second lug on the tongue and of the third lug in the groove.

The term "semi-plastic deformation" does not have a generally accepted meaning and cannot therefore be used to delimit the invention against this prior art.

Thus the combination of features described in **claim 1** is already known from **D1**.

- 2.2 In the letter of 2 April 2004 the applicant argues that **D1** does not disclose a narrowing of the tongue. To illustrate this point, the radius r of a circle with its origin on the tongue-side edge was drawn in on figures 10 and 11 of **D1**. These modified drawings show that the groove 19 has the form of an arc of a circle and therefore does not become narrower.

This argument is untenable.

The narrowing of the tongue is clearly and unambiguously apparent from the description of **D1**, according to which the groove 19 runs at an angle of 30° (page 12, lines 13 to 15 and 25 to 27) so that the upper side of the lug 18 near the opening of the groove 19 is closer to the tongue-side edge of the wearing side than the upper side of the lug 18 near the base of the groove 19. Figures 10 and 11 in **D1** show schematic representations of the panel. The feature according to which the groove 19 has the form of an arc of a circle and hence does not become narrower is derived solely from these schematic representations and hence runs counter to the teaching presented in the description. The said feature is therefore not part of the disclosure of **D1**.

- 2.3 In the letter of 27 August 2004 the applicant argues that as a result of feature (i) a contact point 45

between the second lug 22 and the third lug 31 is formed when the panel elements are joined, and that this contact point can transmit vertical forces towards the wearing side 11 and also horizontal forces towards the panel elements.

This argument is untenable.

Claim 1 does not specify any such contact point, nor does it exclude the possibility that when the tongue and groove are joined the semi-plastic deformation is fully reversed.

- 2.4 The panel element known from **D1** also has the features specified in **claims 2 to 6, 8 and 10**. (For claim 2, cf. the broad rounding in groove base 32; for claim 3, cf. extension 21 and the second undercut; free spaces 30 and 31, into which adhesive can be introduced.)

INVENTIVE STEP (PCT ARTICLE 33(3))

3. The subject matter of **claims 7 and 9** does not involve an inventive step (PCT Article 33(3)).
- 3.1 The additional feature specified in **claim 7** is intended as a simple and reliable check to make sure that the tongue is clipped into the groove; that is, to ensure that the tongue-and-groove joint is fully established.

However, this feature has already been used for the same purpose in a panel element belonging to a matching clip-together parquet floor system (see document **D4**, in particular page 16, third paragraph, point 5, last line).

If the same purpose had to be achieved with the panel element known from **D1**, it would be a simple matter for a person skilled in the art to apply the feature known from **D4** to the panel element according to **D1** and thereby arrive at the subject matter of **claim 7** without making an inventive contribution.

- 3.2 The additional feature specified in **claim 9** is a routine measure (see, for example, document **D2**). For a person skilled in the art the incorporation of this feature in the panel element described in **D1** would be a standard technical measure for preventing the ingress of moisture.

INDUSTRIAL APPLICABILITY (PCT ARTICLE 33(4))

4. The subject matter of **claims 1 to 10** is industrially applicable.

GENERAL POINTS

5. The description is not consistent with the claims (PCT Rule 5.1(a)(iii)).
6. Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not cite document **D1** or give an account of the relevant prior art disclosed therein.
7. The subject matter of **claim 1** would not be obvious from the prior art if the claim were amended as follows:
- (j) in that at least a **first part (25)** of the second lug (22) is closer to the tongue-side edge (18) of the wearing side (11) than a **second part (26)** of the first undercut (23), the first part (25) being

further away from the panel element than the second part (26) when viewed looking in the first direction,

- (k) wherein when the panel elements are clipped together there is **semi-plastic deformation** of the second lug on the tongue and of the third lug in the groove of the other matching panel element, such that a **contact point (45) is formed between the first part (25) of the second lug (22) and the third lug (31)** when the tongue-and-groove joint is in its final position.

Feature (j) is already known from D1.

The contact point enables the tongue-and-groove joint to transmit loads from one of the panel elements without creating stress peaks in the area of the tongue and/or groove (page 5, first paragraph). It has been found advantageous to allow one force component to be transmitted between the panel elements in the second direction at this contact point (page 6, first paragraph).

Claims

1. A panel element having a utilization side, a counter draw opposite the utilization side, a first longitudinal side having a tongue, a second longitudinal side which is located opposite the first longitudinal side and has a groove with a contour opposite to that of the tongue, the tongue having a first projection extending beyond the utilization side in a first direction parallel to the utilization side and normal to the longitudinal direction of the tongue, tongue (2) having in the region of the counter draw (12) a second projection (22) extending in the first direction, a first undercut (23) being formed between the first projection (21) and the second projection (22), characterized in that at least one first region (25) of the second projection (22) has a distance from the tongue-side edge (18) of the utilization side (11) which is smaller than that of a second region (26) of the first undercut (23), in the first direction, the first region (25) being farther away from the panel element than the second region (26).

2. The panel element according to claim 1, characterized in that the first undercut (23) has a constriction in its opening (24) region.

3. The panel element according to claim 1 or 2, characterized in that in the second direction normal to the utilization side (11) tongue (2) has at least an extension (27) and/or a second undercut (28).

4. The panel element according to claim 3, characterized in that the first projection (21) comprises the extension (27) and/or the second undercut (28).

REPLACED BY
APT 34 ANDT

5. The panel element according to claim 3 or 4, characterized in that the first undercut (23) and the second undercut (28) are merged.

6. The panel element according to any one of claims 1 to 5, characterized in that tongue (2) has at least five contact points (41, 42, 43, 44, 45) for power transmission.

7. The panel element according to any one of claims 1 to 6, characterized in that the second projection (22) of tongue (2) can be locked with groove (3) by an audible and noticeable click.

8. The panel element according to any one of the previous claims, characterized in that longitudinal sides (13, 14) and/or face sides (15, 16) are at least partially treated, in particular sprayed, coated or the like, with a hydrophobic agent.

9. The panel element according to any one of the previous claims, characterized in that glue channels (61, 62) form when tongue (2) and groove (3) are connected.

REPLACED BY
ART 34 AMDT